

EXHIBIT NO. 3

P R O D U C T I N F O R M A T I O N

Zonolite®

Masonry Insulation

Product Description**Basic Use**

Zonolite® Masonry Insulation is free flowing vermiculite used to insulate masonry wall cores and cavities. It also increases the fire-resistance rating and Sound Transmission Classification (STC) of the wall system.

Composition & Materials

Zonolite Masonry Insulation, available in 0.11 m³ (4 ft³) bags, is lightweight, free flowing, inorganic vermiculite, specially treated for water repellency. It has a dry loose weight density of 72-112 kg/m³ (4.5-7.0 lb/ft³), and is capable of supporting its own weight, so it will not settle. It is fire-resistant, with a fusion point of approximately 1,204°C (2,200°F), rotproof and vermin-proof.

Limitations

Where average interior relative humidity exceeds 50%, a vapor barrier is recommended on the exterior side of the interior wythe of the cavity wall or composite masonry wall system.

Technical Data**Applicable Standards**

American Society for Testing & Materials (ASTM)

- ASTM E 84-96a – Surface Burning Characteristics of Building Materials

Approvals

Underwriters' Laboratories, Inc. (UL) Fire Resistance Directory, approved designs include:

- Design U-901
- Design U-904
- Design U-905
- Design U-907

Physical/Chemical Properties

Zonolite Masonry Insulation is manufactured to meet or exceed the following standards:

- ASTM C 516-80 – Vermiculite Loose Fill Thermal Insulation, Type II
- Federal Housing Authority (FHA) – FHA Bulletin UM-30
- Federal Specification for Insulation, Thermal (Vermiculite) – Fed Spec HH-585C, superseded by ASTM C 516-80 effective March 31, 1983
- National Concrete Masonry Association (NCMA) – General Performance Criteria

Heat Transmission

Tables 1, 2, 4 and 5 provide system thermal design values, and measured values where noted, for thermal transmittance (U-value) and thermal resistance (R-value) for common constructions insulated with Zonolite Masonry Insulation. A manufacturer's insulation fact sheet is available upon request.

Fire Resistance Rating

Zonolite Masonry Insulation will not burn. When tested in accordance with the ASTM E 84 Tunnel Test, Zonolite Masonry Insulation received the following ratings:

- Flame spread: 0
- Fuel contributed: 0
- Smoke developed: 0

UL Designs U-901, U-904, U-905 and U-907 will improve to a minimum 4 hour rated wall when filled with Zonolite Masonry Insulation. Due to its outstanding performance in the UL Fire Wall Test, 6 hour rated walls can be achieved when filled with Zonolite Masonry Insulation.